

Second Preface to Volume XXXI

Faraday to Tyndall

In the year 1855 MICHAEL FARADAY was generally recognized as the foremost physicist of the world, for his main discoveries had been made in the second quarter of the century. He was then in the sixty-fourth year of his age and though he was destined to live twelve years longer, his main work was done and was more than sufficient for the glory of a single man. Two years before, JOHN TYNDALL had been appointed professor in natural philosophy at the Royal Institution and it is said that these two men collaborated in the most harmonious manner. TYNDALL though only thirty-five years old had already distinguished himself by many theoretical and experimental studies on magneto-optical phenomena and their relationship with molecular structure, on diamagnetic polarity, etc. and his Royal Institution lecture of 1853 "on the influence of material aggregation on the manifestations of force" had drawn to him the attention of the scientific public at large. In Sept. 1855 he attended the meeting of the British Association for the Advancement of Science in Glasgow and read a paper which was followed by a brisk discussion. One of his contradictors was WILLIAM WHEWELL, the master of Trinity, who liked to pontificate and was often sententious, bigoted and overbearing. TYNDALL was pained and irritated and I suspect, without being able to prove it, that it was WHEWELL who had hurt his feelings. He confided his trouble to FARADAY, who was old enough to be his father, and FARADAY wrote him the very kind letter which follows :

Sydenham, 6th Oct., 1855.

My dear TYNDALL,—These great meetings, of which I think very well altogether, advance science chiefly by bringing scientific men together and making them to know and be friends with each other; and I am sorry when that is not the effect in every part of their course. I know nothing except from what you tell me,

for I have not yet looked at the reports of the proceedings; but let me, as an old man, who ought by this time to have profited by experience, say that when I was younger I found I often misinterpreted the intentions of people, and found they did not mean what at the time I supposed they meant; and, further, that as a general rule, it was better to be a little dull of apprehension where phrases seemed to imply pique, and quick in perception when, on the contrary, they seemed to imply kindly feeling. The real truth never fails ultimately to appear; and opposing parties, if wrong, are sooner convinced when replied to forbearingly, than when overwhelmed. All I mean to say is, that it is better to be blind to the results of partisanship, and quick to see good will. One has more happiness in oneself in endeavouring to follow the things that make for peace. You can hardly imagine how often I have been heated in private when opposed, as I have thought unjustly and superciliously, and yet I have striven, and succeeded I hope, in keeping down replies of the like kind. And I know I have never lost by it. I would not say all this to you did I not esteem you as a true philosopher and friend.

TYNDALL treasured this letter and thus was able, some twenty years later, to insert it in his memoir of FARADAY (1). He could appreciate the latter's advice and follow it, for he was himself a very generous man, witness his defense of ROBERT MAYER against his own countrymen, and other noble deeds. FARADAY's advice is still timely. Men of science should give examples of equanimity and longanimity, or else what is the use of their knowledge?

Rockport, Massachusetts.

GEORGE SARTON.

July 28, 1939.

(1) JOHN TYNDALL : *Faraday as a discoverer* (p. 40, London, 1873).